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The Full Motion system introduces in CD-I the capability to play from one CD-I disc up to 72 minutes of moving natural pictures on full screen with audio on Compact Disc quality.
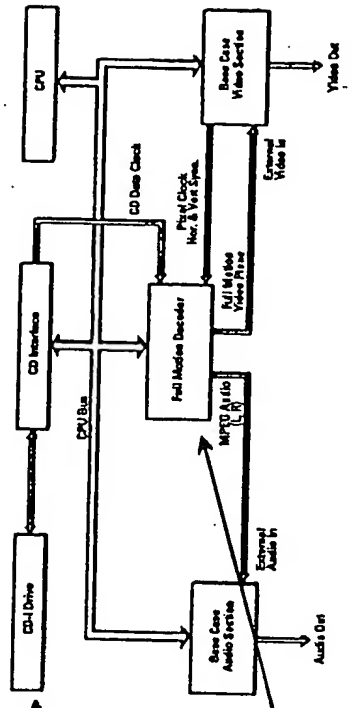

Figure 16 Full Motion decoder in a CD-I player

To support source material in 60 Hz and 50 Hz, several temporal formats can be used. Picture rates of (approximately) 24 Hz and 30 Hz support film and video based source material in 60 Hz, while source material in 50 Hz is supported by a picture rate of 25 Hz.

The Full Motion decoder reconstructs pictures at the picture rate they are coded, i.e. at about 24 Hz, 30 Hz or 25 Hz. The decoder is to produce a video output at a display rate of 60 Hz or 50 Hz. The Full Motion decoder therefore needs to apply a frame rate conversion from the coded picture rate to the required display rate of 60 Hz or 50 Hz. The conversion is applied in temporal direction without any impact on picture size in terms of number of pixels and lines.

60. A system of viewing video information stored on a removable high capacity storage medium, the system comprising:

an input device configured to read the video information from the high capacity storage medium, the video information stored on the high capacity storage medium having a digital audio component and a digital video component, the digital video component having an intermediate format having a frame rate of substantially 24 frames per second (fps);

the digital video component having been formed by converting input video information having an input format with no added redundant frames or fields;

a graphics processor in data communication with the input device and configured to convert the digital video component in its intermediate format to output video information in an output format, the output format having a frame rate that is greater than or equal to the frame rate of the intermediate format, the graphics processor further being capable of being in data communication with a display device for viewing the output video information in the output format.